

REMARKS

In the Office Action, the Examiner noted that claims 1, 3-6, 8-16, and 18-23 are pending in the application. The Examiner rejected claims 1, 3-6, 8-16, and 18-23. By this amendment, claims 1, 3, 5, 6, 8, 10, 14, 19, 22, and 23 are amended. Support for these amendments can be found at least in FIG. 5 of the Applicants' Drawings and at paragraphs [0050]-[0053] of the Applicants' Specification. In view of the above amendments and the following discussion, the Applicants submit that none of the claims now pending in the application are indefinite under the provisions of 35 U.S.C. §112, anticipated under the provisions of 35 U.S.C. §102, or obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in condition for allowance.

I. Objection to the Drawings

The Examiner objects to the Drawings under 37 C.F.R. 1.83(a) for failing to show every feature of the invention specified in the claims. Specifically, the Examiner submits that "the drawings do not show selection/choosing of clock signals as claimed by claims 1, 6, 10, 14, 19, 22, and 23." Claim 8 is rejected for a similar reason. In response, the Applicants have amended independent claims 1, 10, 14, 19, and 22 in order to more clearly recite aspects of the invention. The remainder of the rejection is respectfully traversed.

Claims 1, 10, 14, 19, and 22 have specifically been amended to recite that at least one "clock based functionality" chooses from among the provided clocks, replacing a "circuit portion" that chooses. Claim 6 already recites the "clock based functionality," while claim 8 recites "logic" (which the clock based functionalities represent). Claim 23 recites a method of transmitting and receiving data that includes choosing from among a plurality of recovered clocks.

The Drawings illustrate a plurality of clock based functionalities and a programmable interface that are part of transceiver's programmable logic fabric (see, e.g., at least Figures 5-7). For instance, Figure 5 illustrates three clock based functionalities, denoted by the reference numerals 178, 180, and 182. Moreover, as discussed in the Applicants' Specification, "[e]ach clock based functionality selects one

of the clocks provided to the programmable interface (e.g., one of the first and second recovered clocks and the reference clock)”; and “[e]ach [clock based] functionality selects a clock for its functionality ...” (see, e.g., Applicants’ Specification at least at paragraphs [0051]-[0052]).

Thus, the Drawings clearly illustrate the transceiver components (i.e., the clock based functionalities) that choose from among the clocks. Accordingly, the Applicants respectfully request that the objection to the Drawings be withdrawn.

II. Rejection of Claims Under 35 U.S.C. §112

The Examiner rejected claim 6 for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, the Applicants have amended claim 6 in order to more clearly recite aspects of the present invention.

Specifically, claim 6 has been amended to recite that the clocks are provided to a “logic fabric” comprising first, second, and third clock based functionalities. These clock-based functionalities then select from among the provided clocks (e.g., as described at least in paragraphs [0051]-[0052] of the Applicants’ Specification).

In light of this amendment, the Applicants respectfully submit that claim 6 is not indefinite. Accordingly, the Applicants respectfully request that the rejection of claim 6 under 35 U.S.C. §112 be withdrawn.

III. Rejection of Claims Under 35 U.S.C. §102

The Examiner rejected claims 6 and 10-22 as being anticipated by Venkata (United States patent 7,180,972, issued February 20, 2007). In response, the Applicants have amended independent claims 6, 10, 14, 19, 22, and 23 in order to more clearly recite aspects of the present invention. Claim 17 was cancelled without prejudice in a previous amendment.

Venkata teaches clock signal circuitry for multi-protocol high-speed serial interface (HSSI) circuitry. More specifically, Venkata discloses various programmably controlled logic connectors (PLCs) that output clock signals for use by different components of the HSSI circuitry. Each PLC is provided with a plurality of potential

clock signals as inputs from which to select its output. These potential inputs may include a recovered clock signal, a reference clock signal, or a scan clock signal.

Venkata, however, does not teach each and every element of Applicants' independent claims 6, 10, 14, 19, 22, and 23. Namely, Venkata does not teach or suggest that all clock signals produced in a system are available for use by all clock based functionalities, as positively claimed by the Applicants.

In one embodiment, Applicants' invention discloses an approach where each of a plurality of clock based functionalities is provided with a first recovered clock signal, a second recovered clock signal, and a reference clock signal, from which each clock based functionality is able to choose a clock signal for subsequent processing. (See, e.g., Applicants' Specification, at least at paragraphs [0051]-[0053], [0069]; FIGs. 5, 6, 7, 8, and 12, where each clock based functionality is able to choose among the recovered signals and the reference signal). In contrast, Venkata teaches that each PLC receives a different set of clock signals from which to choose (i.e., a first PLC may have access to clock signals to which a second PLC does not have access). For example, FIG. 2d of Venkata clearly shows that PLC 320 is provided with three clock signals (on leads 134, 134', and 712), while PLC 310 is provided with only two clock signals (on leads 134 and 712). Moreover, PLC 330 in FIG. 2c is provided with four clock signals (on leads 134, 134', 712, and 334). There is no teaching that all clock signals are available to or are provided to each individual PLC. Thus, Venkata fails to teach or suggest Applicants' invention where each clock based functionality is able to choose from among the same set of clock signals: the first recovered clock signal, the second recovered clock signal, and the reference clock signal.

Since Venkata does not teach the ability to allow each clock based functionality to choose among the first recovered clock signal, the second recovered clock signal, and the reference clock signal, Venkata does not teach each and every element of Applicants' independent claims 6, 10, 14, 19, 22, and 23. Accordingly, Venkata does not anticipate Applicants' invention recited in claims 6, 10, 14, 19, 22, and 23.

Furthermore, claims 11-13, 15-16, 18, and 20-21 depend from claims 10, 14, and 19 and recite additional features therefor. Since Venkata does not anticipate Applicants' invention as recited in claims 10, 14, and 19, dependent claims 11-13, 15-

16, 18, and 20-21 are also not anticipated and are allowable. Therefore, the Applicants contend that claims 6 and 10-22 are not anticipated by Venkata and, as such, fully satisfy the requirements of 35 U.S.C. §102.

IV. Rejection Of Claims Under 35 U.S.C. §103

A. Claims 1, 4-6, 8-16, 18-21, and 22-23

The Examiner rejected claims 1, 4-6, 8-16, 18-21, and 22-23 as being unpatentable over Mann (United States patent 5,251,210, issued October 5, 1993) in view of Venkata. In response, the Applicants have amended independent claims 1, 6, 10, 14, 19, 22, and 23, as discussed above, in order to more clearly recite aspects of the present invention.

As discussed above, Venkata fails to teach or suggest Applicants' invention where each clock based functionality is able to choose among the same set of clock signals: the first recovered clock signal, the second recovered clock signal, and the reference clock signal. Mann likewise fails to teach or suggest this feature. Specifically, Mann teaches neither the use of a reference clock nor the provision of a common set of clock signals to a plurality of clock based functionalities, where each clock based functionality is able to choose one of the clock signals for subsequent processing.

Therefore, Applicants contend that independent claims 1, 6, 10, 14, 19, 22, and 23 are patentable over the combination of Mann and Venkata and, as such, fully satisfy the requirements of 35 U.S.C. §103.

Furthermore, claims 4-5, 8-9, 11-13, 15-16, 18, and 20-21 depend from claims 1, 6, 10, 14, and 19, respectively and recite additional features therefor. Since Mann in view of Venkata does not teach or suggest Applicants' invention as recited in claims 1, 6, 10, 14, and 19, dependent claims 4-5, 8-9, 11-13, 15-16, 18, and 20-21 are also not unpatentable and are allowable. Therefore, the Applicants contend that claims 1, 4-6, 8-16, 18-21, and 22-23 are not unpatentable over Mann in view of Venkata and, as such, fully satisfy the requirements of 35 U.S.C. §103.

B. Claim 3

The Examiner rejected claim 3 as being unpatentable over Mann in view of Venkata and further in view of in view of Tang (US Publication No. 2002/0075981). In response, the Applicants have amended independent claim 1, as discussed above, in order to more clearly recite aspects of the present invention.

As discussed above, Mann in view of Venkata does not teach or suggest Applicants' invention where each clock based functionality is able to choose among the same set of clock signals: the first recovered clock signal, the second recovered clock signal, and the reference clock signal. This deficiency is not bridged by the teaching of Tang.

Therefore, Applicants contend that claim 3 is patentable over the combination of Mann, Venkata, and Tang and, as such, fully satisfies the requirements of 35 U.S.C. §103.

C. Claim 8

The Examiner rejected claim 8 as being unpatentable over Mann in view of in view of Venkata and further in view of McCormack (United States patent 6,463,109, issued October 8, 2002). In response, the Applicants have amended independent claim 6, as discussed above, in order to more clearly recite aspects of the present invention.

As discussed above, Mann in view of Venkata and further in view of McCormack does not teach or suggest Applicants' invention where each clock based functionality is able to choose among the same set of clock signals: the first recovered clock signal, the second recovered clock signal, and the reference clock signal. This deficiency is not bridged by the teaching of McCormack.

Therefore, Applicants contend that claim 8 is patentable over the combination of Mann, Venkata, and McCormack and, as such, fully satisfies the requirements of 35 U.S.C. §103.

D. Claim 9

It appears that the Examiner rejected claim 9 as being unpatentable over Mann in view of in view of Venkata and further in view of McCormack (see, Office Action, Page 22). In response, the Applicants have amended independent claim 8, as discussed above, in order to more clearly recite aspects of the present invention.

As discussed above, Applicants contend that claim 8 is patentable over the combination of Mann, Venkata, and McCormack and, as such, fully satisfies the requirements of 35 U.S.C. §103. Claim 9 depends from claim 8 and recites additional features therefor. Since Mann in view of Venkata and further in view of McCormack does not teach or suggest Applicants' invention as recited in claim 8, the Applicants respectfully submit that dependent claim 9 is also not unpatentable and is allowable.

CONCLUSION

Thus, the Applicants submit that none of the claims presently in the application are indefinite under the provisions of 35 U.S.C. §112, anticipated under the provisions of 35 U.S.C. §102, or obvious under the provisions of 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring any adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Justin Liu at 408-879-4641 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

All claims should be now be in condition for allowance and a Notice of Allowance is respectfully requested.

Respectfully submitted,

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I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent & Trademark Office on April 10, 2008.

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